Addendum No. 1 to RFP for Legal Counsel for the Hualapai Tribal Utility Authority

Issued: February 2, 2016

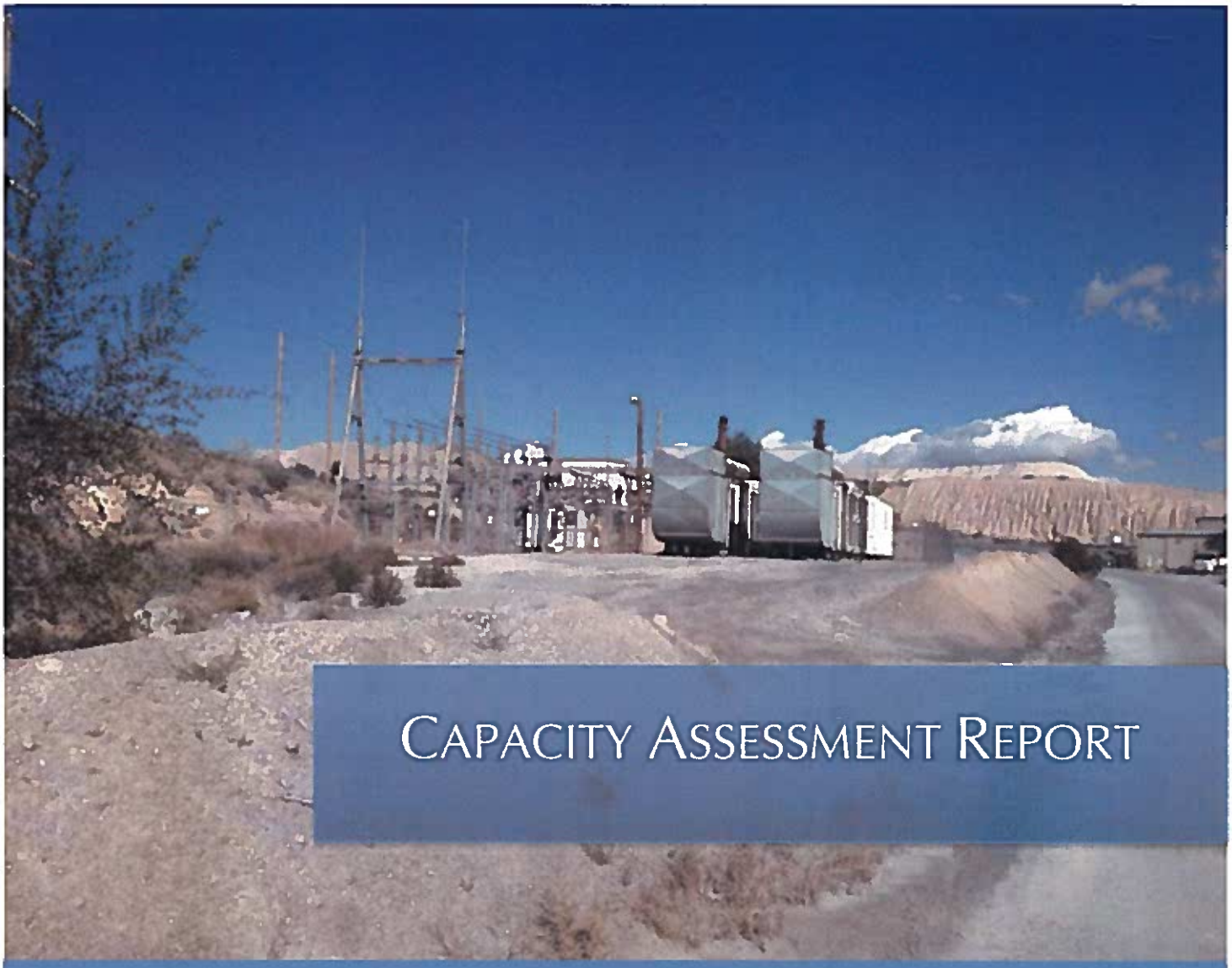
The applicants may show their capability, knowledge and understanding of the scope of work by providing a summary of anticipated tasks and hours needed to prepare a loan application to USDA, assess the existing electrical distribution system serving Peach Springs for eventual purchase by the HTUA, develop a community-scale solar generating facility, or other such activity required to the help the HTUA fulfill goals.

Received after publication the RFP is the attached Capacity Assessment Report for the tribe in regard to energy development. Please consider this document as additional back-up information to become familiar with and which should be referenced in the response to the RFP.

Issued by:

Kevin Davidson, Planning Director

Attachment: Capacity Assessment Report



CAPACITY ASSESSMENT REPORT

JANUARY 29, 2016

PREPARED FOR:

HUALAPAI PLANNING & ECONOMIC DEVELOPMENT DEPARTMENT

PREPARED BY:
KANIM ASSOCIATES, LLC &
BAKER TILLY, LLP

Table of Contents

Report Authors

***Direlle R. Calica,* Managing Partner**
***Charles R. Calica,* Partner**
Kanim Associates, LLC
9711 SW 50th Avenue
Portland, OR 97219
Office: (971) 255-1404
Email: direllecalica@kanimllc.com
Website: www.kanimllc.com

and

***James F. Yockey,* Senior Manager**
Baker Tilly LLP
10 Terrace Ct.
Madison, WI 53707-7398
Office: (608) 240-2696
Email: jim.yockey@bakertilly.com
Website: www.bakertilly.com

TASK

a) Finding methods to determine the current level of a tribe's or tribal energy resource development organization's technical, administrative, or management capacity for identified energy resource development activities;

b) Finding methods to determine which technical, administrative, or management capacities for tribal energy resource development need enhancement;

c) Finding methods to determine what process(es) and/or procedure(s) may be used to eliminate capacity gaps or obtain the development of energy resources development capacity (including training and policy and code development);

d) Finding methods to determine how the process(es) and/or procedures(s) identified above will be implemented;

e) Making a recommendation for establishing or managing energy development-related departments or administrative divisions within the tribe or tribal energy resource development organization

f) Making recommendations for developing or enhancing tribal policies, codes, regulations, or ordinances related to regulating energy resource development.

EXECUTIVE SUMMARY

Kanim Associates (Kanim) in conjunction with their subcontractor Baker Tilly (BT), conducted a capacity assessment for Hualapai Tribal Utility Authority (HTUA) looking at the Hualapai Tribe and its wholly owned subsidiary Grand Canyon Resort Complex (GCRC) to understand how and to what degree HTUA could engage in a number of energy related power deals and development projects that have been envisioned by HTUA.

Kanim and BT have assessed the technical, administrative and managerial capacity of the related organizations through a number of methods. These methods include Tribal and non-tribal staff interviews, business process mapping and industry standard approaches to these activities.

Kanim and BT have concluded that the Tribe has marginal capacity to engage in some of these endeavors but will require staff or organizational augmentation to fully engage in those projects and power deals as currently envisioned. Key areas of concern with current capacity are a large reliance on outside non-local vendors for technical and managerial understanding and business process controls. Added to this concern are an imminent loss of key internal staff and an inability of Hualapai to recruit and retain new staff responsible for these added endeavors.

HTUA has an active and well-informed Board of Directors (BOD). HTUA has excellent relationships with sound electrical design/construction engineering firms. Likewise the Tribe has capable senior directors in finance, planning and public works. The problem with this current

configuration is that those three senior staff would have dual responsibility under HTUA project development. This could be overwhelming and defeats the purpose of a separate entity as the functions of those departments becomes indistinguishable and overlapping of the functions as required under the HTUA charter. HTUA currently has no general management team, nor does it possess technical or administrative staff dedicated to electric power other than the Tribe's own staff directors.

Nevertheless and despite marginal capacity, Hualapai and its HTUA have a well thought out plan and process for energy project development. With some added areas of expertise and staff augmentation, HTUA could accomplish most if not all of what those plans entail.

METHODOLOGY

BT, as subcontractor to Kanim, has employed the following methods for assessing the technical, administrative and managerial capacity of HTUA and the Hualapai Tribe and its wholly owned subsidiary GCRC.

Interviews: the following individuals were interviewed to assess capacity

Tribe	GCRC	Contractors
Phil Wisely, Director Public Works Wanda Easter, Director Finance Kevin Davidson, Director Planning	Steve Malin, CFO Tony Richards, Lead Electrician Jeffrey Waunika, Maintenance Mgr. Bill Brummel, Electrician	Lou Schmitt, TTG Design Engineer

Organization Charts: These were created based on documents and discussions with Tribal and other staff. Current state chart captures existing roles, and future states chart was created by calibration to comparable sized government utility clients.

Process Maps: High-level process maps were constructed based on existing processes. Gaps were identified by comparison to small municipal type utilities of similar scale and scope.

Controls Evaluation: Accounting controls were assessed based BT's on audit practice for 40 years understanding internal financial controls.

Industry knowledge: General energy and project development expertise were assessed based on development of renewable energy projects, tribal and municipal distribution utilities and power sales at retail and wholesale level.

ASSESSMENT

Project 1 Mini-grid – The current process for operating the mini-grid at Grand Canyon West (GCW) is as follows:

Technical; Technical capability currently resides in three distinct groups - GCRC staff, outside consultants and Tribal Public Works staff. Day to day operational understanding resides in GCRC's master electrician Tony Richards. Tony has a team of "electricians" who are basic journeyman skill level electricians. Although Tony is qualified for high voltage work, GCRC chooses to leave high voltage repair and maintenance to outside contractors, namely Walker Electric for generator set repair and to TTG engineering for design/construction and repair of the underground distribution system. As-built plans were developed by TTG and are kept by Phil Wisely the Tribal Director of Public Works. Phil currently interfaces with GCRC as owner's representative on major construction projects. Phil is a P.E., has practical experience in power plant operation and effectively serves the role of electrical superintendent in consultation with engineers from TTG.

Administrative; Administrative functions are carried out by the master electrician and his staff in coordination with maintenance staff. Various duties associated with checking and maintaining fuel levels, ordering fuel, coordinating repairs and communicating emergencies are also part of their duties.

Managerial; The Master electrician and staff are under direction of a maintenance manager Jeffrey Waunika and a General Manager Ray Martinez. These report up to Rory Majenty who is Chief Operations Officer of GCRC.

Current Capacity Assessment; GCRC capacity is marginally adequate for operating the mini-grid. Operational skilled employees reside in Kingman and Bullhead communities, and commute a significant distance to work. GCRC is likely to lose its master electrician soon with no candidate identified to replace him. This will create a capacity gap in working knowledge of the mini-grid. It is recommended that GCRC hire skilled staff capable of performing most repairs and able to reside on-site.

Future Capacity Enhancements; Under the scenario that a true utility distribution system is owned and operated by HTUA, the current operational activities around generator set Operation and Maintenance (O&M) could decrease. In that case, HTUA would own the underground infra-structure and would sell power to GCRC. It would then be incumbent upon HTUA to provide personnel to repair the grid, read the meters and provide billing and other customer services. The power line-to-grid project will create less of a need for day-to-day operations of generation resources, as power will come from the grid. Operations for GCRC will be moved to facility level and thus the current facility level staff could be adequate. If HTUA takes over grid operations O&M will likely remain as an outsourced activity with TTG or a similar firm. Opportunities in the demand response and ancillary services market will emerge for the HTUA but these will be

opportunistic and control regimes could be programmed into generation resources to capture those opportunities via economic dispatch.

An example of this type of opportunity would be demand response (ability to shed load) of black start capability (ability to add generation) as a paid ancillary service. Most regional system operators provide economic incentives to wholesale power providers that can either shed load immediately or have excess black start capability. Black start capability is the ability to have generation online within a particular timeframe (generally within 15 minutes or one hour). Grid participants with this ability can be paid to have this capability available; often without ever even having to use it. HTUA with its excess generation and its standby capacity will be in a good position to get paid for having this available.

Project 2 Securing PPA – Negotiating a Power Purchase Agreement (PPA) for a wholesale utility scale solar plant requires knowledge of regional wholesale energy, capacity and ancillary services costs. Other necessary information includes specific avoided cost related to the incumbent utility counterparty's system lambda, as a way to verify true avoided cost. This information can be obtained through proprietary and public information sources available to BT. Knowledge of planned system and line upgrades are also important pieces of information for leverage purposes. HTUA has an intermediate level of knowledge for these purposes.

Technical; The Director of Planning has educated himself about many of the issues related to entering into a PPA with current power providers. However no one at the Tribe or with HTUA has actually entered into or executed this type of a deal. Frank discussions with incumbent utilities and participation in regional power discussions have provided a level of knowledge suggesting that the HTUA could enter into discussions at a level adequate to get fair pricing. The Director of Planning has also participated in discussions with other Tribal utilities and has gained insight into these types of deals from this participation.

Ownership of the power plant in the context of tribal utility operation makes a PPA moot. The key issue is whether and under what terms there is ownership of distribution assets. Preliminary investigations of this issue suggest that distribution line assets are past depreciation age and create significant risk if purchased "as is." Significant due diligence beyond the scope of this capacity assessment is required to answer the key question whether to buy aging infrastructure. Under a PPA the asset risk is borne by the incumbent utility but associated terms or escalation terms need to be understood and negotiated as they may transfer that risk to HTUA in the form of price. It is not clear whether HTUA understands those risks.

Administrative; Administering the PPA requires competence in contracts administration and legal interpretive review. The Director of Planning and can provide this contract administration under the assumption that it is a "once and done" opportunity. More likely, various terms and provisions that have threshold limits and escalations will be included in the PPA which require ongoing administration. BT was not able to fully assess the contract administrative capacity of HTUA. It is possible that this capacity exists in the Finance or consulting legal team with grants administration but BT was not able to determine these levels.

Managerial; Management of the PPA is equivalent to administration of contract with the added task of overall responsibility.

Project 3 Owning and Managing Utility Scale Solar Farm – Owning and managing a utility scale solar farm requires status as a distribution utility in order to maximize the benefit of the project by displacing retail grid power. Other options include either a wholesale PPA, which provides lower value or a retail aggregated net meter arrangement that provides higher retail value. In either case ownership and operations involves transparent Supervisory Control and Data Acquisition (SCADA) capability and diagnostics for inverter and panel output.

Technical; Currently the Tribe operates a number of smaller scale Photo Voltaic (PV) systems that provide electric power for government and utility purposes. These include water pumping facilities, correctional facilities and facilities at Grand Canyon West (GCW) that do not operate but are functional. It is likely that a utility scale solar PV system will provide for O&M with the contractor that installs the system. This is not uncommon. Nevertheless, a process for regular and periodic monitoring of output is required so the investment does not degrade prematurely. The Director of Public Works (DPW) appears to have staff and adequate process for checking in on utility assets. However, comments from the DPW suggests that great distances are travelled every day to maintain roads and other common assets. Thus new assets would be an added burden. A combination of Geographic Information System (GIS) and remote SCADA systems associated with utility assets is recommended to relieve this burden.

Administrative; There are not a lot of administrative issues associated with owning a utility scale solar asset other than integrating the output of that asset into a power purchase portfolio and the cost into a cost of service model. To do this HTUA should moderately invest in utility billing metering and back-office software. The investment for such software should be scale appropriate to the number of meters and number of generation systems that HTUA has. Currently the Tribe uses the Great Plains back-office accounting system. This system is not adequate for operating a distribution utility. There are adequate municipal type programs available and HTUA should investigate those making sure the one chosen is interoperable with other reporting systems and the Great Plains back office system.

Managerial; HTUA lacks a General Manager (GM). That function is currently served by the Director of Planning. BT recommends a GM and a superintendent structure based on the particular utility distribution service provided. Thus the GM would have a superintendent of electricity that would be responsible for all those distribution assets and a water superintendent for water and wastewater. Due to the remote location of the Tribe it is difficult to staff those positions. Thus the GM may have dual roles. Nevertheless it is important to staff adequately if HTUA is serious about owning generation and distribution assets.

Project 4 Running an Apprenticeship Program for RES on Homes and Public Buildings – This has been done successfully by a number of Tribes partnering with non-profit entities set up for this specific purpose. Two organizations of note, that would likely work out as partners, are Trees Water People out of South Dakota or Grid Alternatives out of California. Both of these

organizations have successful experience with Tribal groups with solar apprenticeship type programs. Here are links to those organizations. www.treeswaterpeople.org, www.gridalternatives.org.

Project 5 WAPA Hydropower Allocation Management – Management of a Western Area Power Administration (WAPA) power allocation can take a number of forms. The most attractive is to incorporate the allocation into a portfolio of purchased power balanced with self-generation as part of an electric distribution function. Another less attractive way is to allocate the credit difference via the incumbent utility's bills or aggregate the credit into a single monthly payment. This approach was common for many Tribes that did not have their own distribution utility. This capacity assessment was made under the assumption that HTUA will become an electric distribution entity.

Technical; WAPA has a trust responsibility to the Tribe and should be leaned upon to provide adequate technical understanding of the rate structure under which the allocation is provided. It is then up to HTUA to incorporate that allocation into its cost of service in order to provide electric distribution service to its members. The key technical component for portfolio optimization is developing economic dispatch capability among the energy resources available to HTUA. Economic dispatch is an optimization process that matches loads to resources in real-time, providing the least cost resource for the appropriate load. Developing economic dispatch capability can be an automated process with adequate understanding of load and resources. Currently HTUA does not have that capability. Developing that capability in the context of getting WAPA allocation, significant self-generation and other purchase power resources, will be a key component of distribution capability.

Administrative; Portfolio optimization can be an automated process once load and resource are fully characterized. Reporting is the key administrative function and that too should be set-up as an automated process to minimize manual effort. HTUA currently does not have that capacity but could acquire it as part of developing its distribution capacity. The path toward economic dispatch begins with sound management practices incorporated within the acquisition of generation and distribution assets.

Managerial; as noted above, HTUA lacks a General Manager. An experienced GM is a key factor in developing economic dispatch and portfolio optimization. That function is currently served by the Director of Planning. BT recommends a GM and a superintendent structure based on the particular utility distribution service provided. Thus the GM would have a superintendent of electricity that would be responsible for all those distribution assets. Due to the remote location of the Tribe it is difficult to staff those positions. Thus the GM may have dual roles. Nevertheless it is important to staff adequately if HTUA is serious about owning generation and distribution assets.

Project 6 Negotiating Leases for Utility Right of Way (ROW) – Negotiating leases requires understanding of methods of valuation for Federal and private land assets. It also requires understanding of the underlying value of the utility assets. Depending on whether the HTUA is the lessee or lessor, different strategies can be adopted. Currently, the Director of Planning has the capability, with advice from professional accounting services and legal services, to negotiate rights

of way as either the lessee or lessor. The actual capacity requires a specific case to understand all that will be involved but HTUA appears to possess that capacity in its BOD.

Project 7 Operating Electric Distribution Utility – This task is a multi-function enterprise comprising front office customer service and education, operations, including field work and information technology, and back-office finance and human resource training. It may also involve regulatory compliance depending on its governance structure.

Technical; Key to implementing and operating an electric distribution utility is understanding and developing appropriate cost of service rates for cost recovery of distribution assets. At a bare minimum, a distribution utility owns or leases distribution assets (as a natural monopoly) and through its rate structure, recovers those costs maintaining adequate margin for long term sustainability. There are hybrid approaches to this basic functionality including outsourcing of the billing and O&M function, but owning assets and profitably recovering those costs is at the heart of it. This function would ordinarily be performed by the HTUA BOD in consultation with an outside professional accounting firm such as BT. These Cost of Service (COS) rates need to be approved by the BOD (vetted in a semi-public fashion) and integrated into the billing process by the GM so that there is seamless integration of operations with front and back office functions. Once incorporated, an annual review of rates by an accounting firm based on actual rates of return should be conducted to maintain appropriate recovery of costs. The HTUA BOD appears to have adequate capacity to be involved with rate creation, and able to engage the public in this process. However The HTUA BOD also requires help on governance for the creation of the rates and integration of those rates into a billing system and this augmentation is recommended.

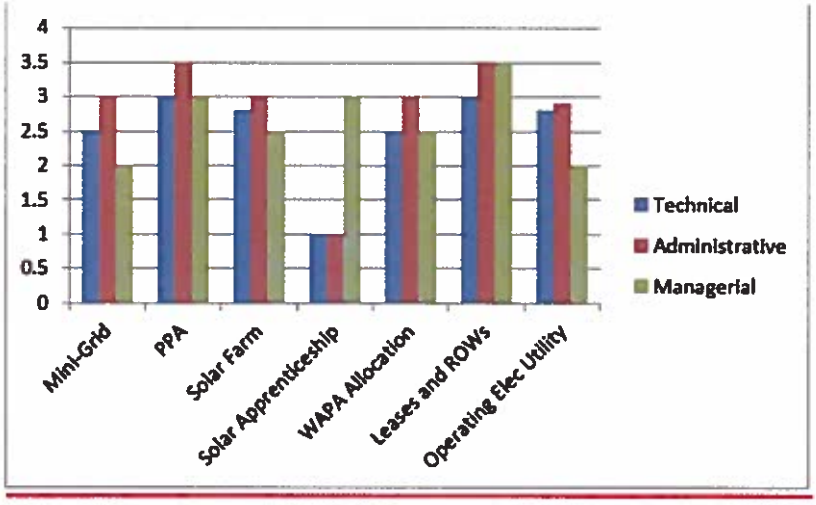
Administrative; A significant amount of education of the member customers of HTUA is required to develop acceptance of this initiative. Outreach is key. The BOD or its GM should be engaged in educational outreach immediately upon deciding to become a true distribution utility. A staff level accountant type position should also be created to administer and maintain the utility billing and collection system. Currently the Finance department appears to have adequate staff to take over that function provided that there is proper training and an appropriate software package to deliver these services. This function could also be outsourced, which has certain quality control advantages for the immediate term, since various guarantees of performance could be negotiated with the billing company. Outsourcing also provides some insulation from Council intervention on behalf of delinquent customers, which can be a problem for collections. Yet another option is to utilize pre-payment meters as a way to insure adequate cash-flow for the utility and this technology could work with either option.

Managerial; It has already been noted how important a GM position is to this endeavor. HTUA and the Tribe must commit to adequate staffing if this initiative is to succeed. An ideal candidate will have understanding of the unique Tribal context along with depth understanding of utility service and electric distribution. An alternative given that this would be a new endeavor, would be a candidate with high aptitudes and communication skills willing to and able to learn the requirements and grow with the job. A lack of pre-conceived notions about what a utility must be,

could be an asset in a dynamic and changing operational context. Nevertheless this function is required.

Below is a table and graph summarizing the capacity assessment for each of the seven projects.

	Technical	Administrative	Managerial		
Mini-Grid	2.5	3.0	2.0		
PPA	3.0	3.5	3.0		
Solar Farm	2.8	3.0	2.5		
Solar Apprenticeship	1.0	1.0	3.0		
WAPA Allocation	2.5	3.0	2.5		
Leases ROWs	3.0	3.5	3.5		
Operating Electrical Utility	2.8	2.9	2.0		
	poor	marginal	adequate	good	excellent
Scale	1	2	3	4	5



SUMMARY OF RECOMMENDATIONS

Based on the current state of the organization and its priorities, Kanim and BT make the following recommendations:

A) HTUA should create an RFP to solicit creative turn-key finance and development of GCW power-line project. The power-line project is essential to create savings and provide reliable grid power to GCW. With the limitation of $250,000 for debt service and Constitutional limits for waivers of sovereign immunity this project and others contemplated by the HTUA and the Tribal Council will not move forward. The amendment to the constitution is an important initiative but may not succeed. An RFP that includes performance type financing could move the project forward in a timely fashion.

B) HTUA has two primary paths for getting the necessary capacity to move its energy project development initiatives forward. These are to outsource distribution utility services or build internal capacity. Each of these will be addressed in turn.

Path 1 Outsource distribution utility services

1 – Regardless of which path is chosen it is essential to have skilled electricians on hand to deal with operational and maintenance issues that are bound to come up at the GCW mini-grid. Therefore it is imperative that HTUA recruit in the Kingman, Flagstaff and Bullhead employment markets for a power plant operator master electrician. This role will need to be filled in order to identify and prioritize tasks associated with power delivery to the facilities in GCW.

2 – HTUA needs to define the scope of distribution services that it will outsource. Generally a five-year term will provide the stability necessary to establish operations and to provide training for staff. Therefore an important task is to develop an outsourced utility plan that covers acquisition and deployment of distribution assets. The first priority of that plan would be to provide services to GCRC as its first customer. An annual budget and a cost of service model should be created to set rates for electric service. An RFP for utility services can then be created to find a provider that can deliver services within the constraints of the established rate structure.

Path 2 Build utility capacity in-house and stage deployment

3 – Much like the outsource plan HTUA needs to refine the utility plan based on actual capacity available. The current plan has the HTUA taking over service upon provision of grid power to GCW. However as already noted, a number of key items must be in place before that happens. A staging plan that lines up HTUA capacity to the appropriate stage of development is a prudent first step under the assumption that HTUA commits to providing distribution services in-house.

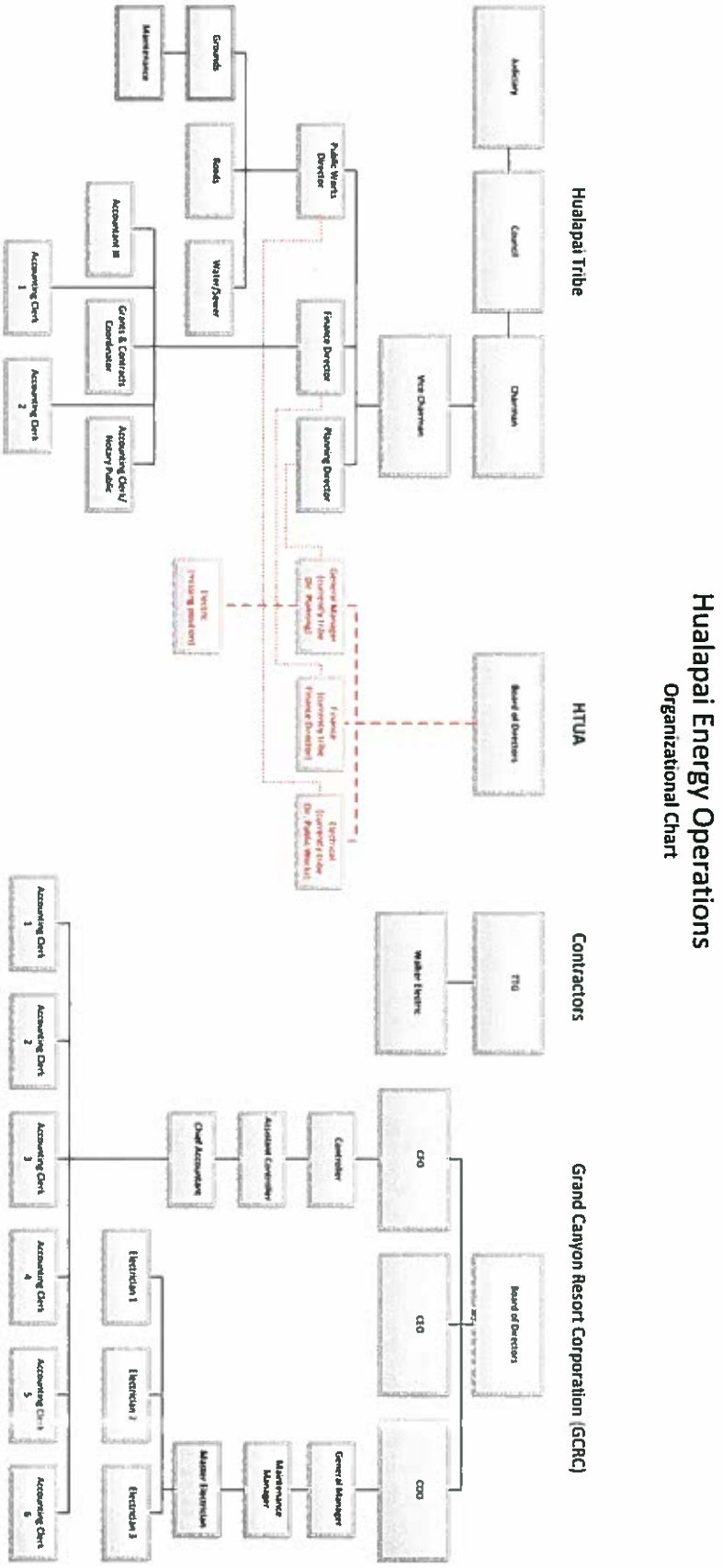
4 – As mentioned throughout the report, sound management of the HTUA requires a competent general manager. It is therefore incumbent upon HTUA to recruit in the Kingman, Flagstaff,

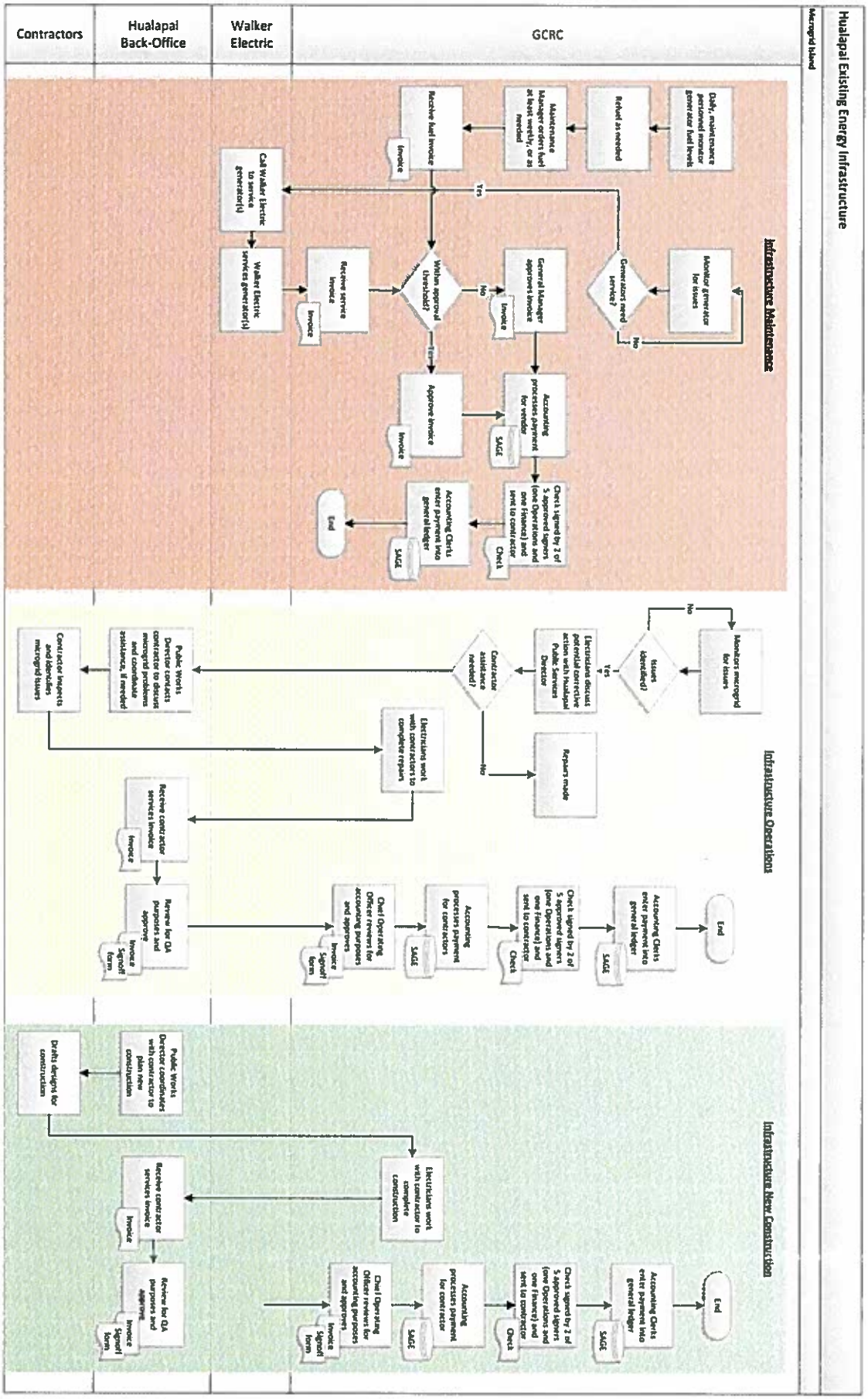
Bullhead and Las Vegas employment markets for a GM for the HTUA. Fair compensation must be part of the staffing plan and should be based, not on the Tribal Employment rates currently used, but instead upon an administrative compensation plan incorporated as part of the cost of service model. Creating the COS model is key to understanding who should be hired and at what level of compensation.

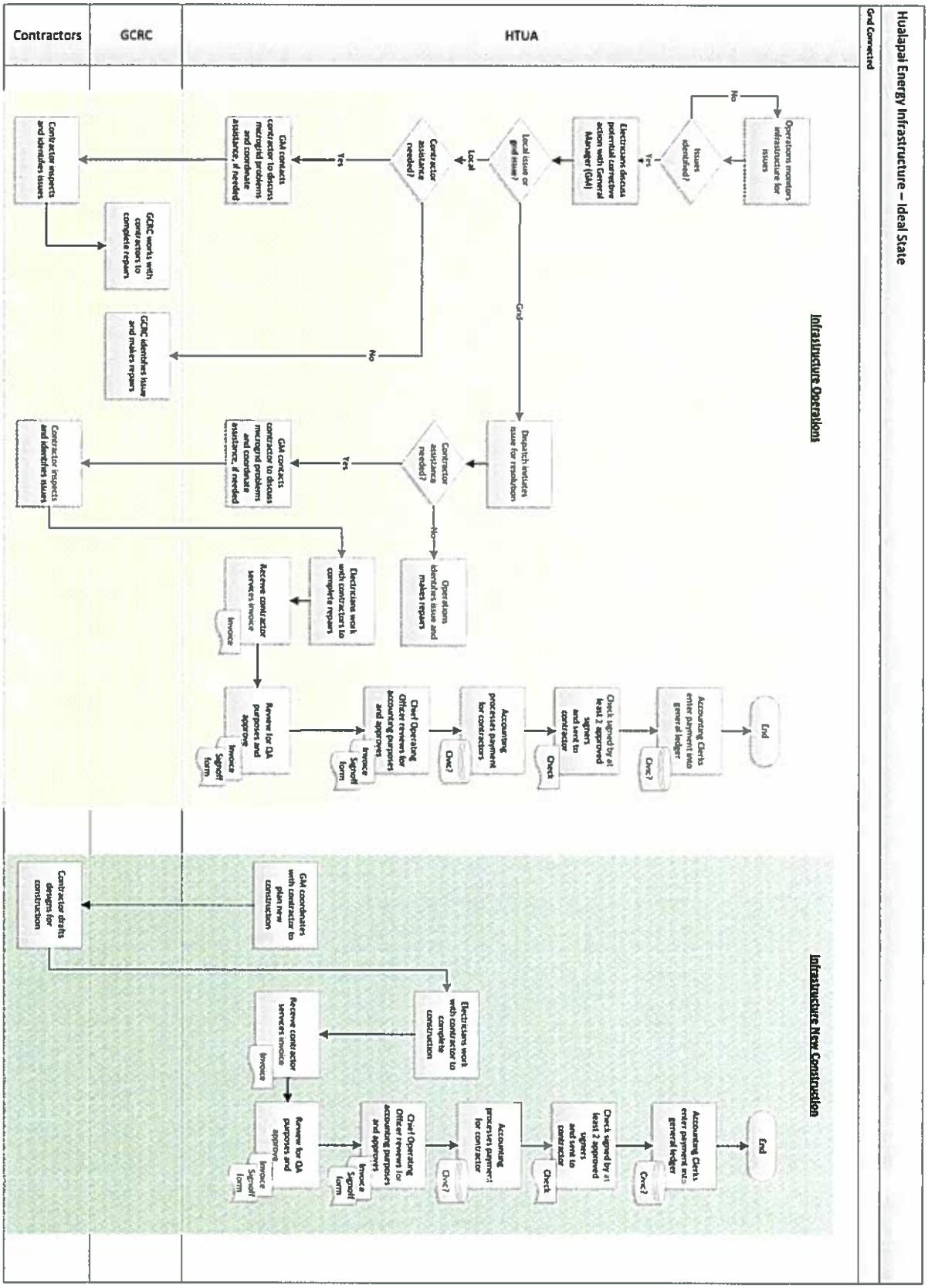
5 – HTUA will also require a billing and administrative software package to operate the utility. Therefore, HTUA should conduct a review for purchase of utility software. This software should be scale appropriate to the number of customers and level of functionality required. Ideally it should also provide work-flow management as a way to identify daily, weekly and monthly tasks of the GM and accounting clerical staff. Work flow management incorporated into the utility software can be an easy effective way to build capacity in staff.

6 – Once the GM is in place and COS model built and these rates are incorporated into the utility software package, HTUA should then train accounting staff on electric distribution clerical activities As noted in the report, there is probably adequate capacity to train existing staff for this position but if that is not possible then HTUA should recruit and train staff from outside existing personnel.

CHARTS & DIAGRAMS




Hualapal Existing Energy Infrastructure
Microgrid Island
Contractors
Hualapai Back-Office
Walker Electric
GCRC
Infrastructure Maintenance
Daily, maintenance personnel monitor generator fuel levels
Refuel as needed
Maintenance Manager orders fuel at least weekly, or as needed
Receive fuel invoice
Invoice
Call Walker Electric to service generator(s)
Walker Electric services generator(s)
Receive service invoice
Invoice
Monitor generator for issues
Generators need service?
No
Yes
Within approval (threshold)?
No
Yes
General Manager approves invoice
Invoice
Approve invoice
Invoice
Accounting processes payment for vendor
SAGE
Check signed by 2 of 5 approved signers (one Operations and one Finance) and sent to contractor
Check
Accounting Clerk enter payment into general ledger
SAGE
End
Infrastructure Operations
Monitors microgrid for issues
Issues identified?
No
Yes
Electricians discuss potential corrective actions with Hualapai Public Services Director
Contractor assistance needed?
No
Yes
Repairs made
Public Works Director contacts contractor to discuss microgrid problems and coordinate assistance, if needed
Contractor inspects and fabricates microgrid issues
Electricians work with contractors to complete repairs
Receive contractor services invoice
Invoice
Review for QA purposes and approval
Invoice
Signoff form
Chief Operating Officer reviews for accounting purposes and approves
Invoice
Signoff form
Accounting processes payment for contractors
SAGE
Check signed by 2 of 5 approved signers (one Operations and one Finance) and sent to contractor
Check
Accounting Clerk enter payment into general ledger
SAGE
End
Infrastructure New Construction
Drafts designs for construction
Public Works Director coordinates with contractor to plan new construction
Electricians work with contractor to complete construction
Receive contractor services invoice
Invoice
Review for QA purposes and approval
Invoice
Signoff form
Chief Operating Officer reviews for accounting purposes and approves
Invoice
Signoff form
Accounting processes payment for contractor
SAGE
Check signed by 2 of 5 approved signers (one Operations and one Finance) and sent to contractor
Check
Accounting Clerk enter payment into general ledger
SAGE
End


Hualapai Energy Infrastructure – Ideal State
Grid Connected
HTUA
GCRC
Contractors
Infrastructure Operations
Infrastructure New Construction
Operations monitors infrastructure for issues
Issues identified?
No
Yes
Electricians discuss potential corrective action with General Manager (GM)
Local issue or grid issue?
Local
Grid
Contractor assistance needed?
Yes
No
GM contacts contractor to discuss microgrid problems and coordinate assistance, if needed
Contractor inspects and identifies issues
GCRC works with contractors to complete repairs
GCRC identifies issue and makes repairs
Dispatch initiates issue for resolution
Contractor assistance needed?
Yes
No
GM contacts contractor to discuss microgrid problems and coordinate assistance, if needed
Contractor inspects and identifies issues
Operations identifies issue and makes repairs
Electricians work with contractors to complete repairs
Receive contractor services invoice
Invoice
Review for QA purposes and approve
Invoice
Signoff form
Chief Operating Officer reviews for accounting purposes and approves
Invoice
Signoff form
Check?
Accounting processes payment for contractors
Check
Check signed by at least 2 approved signers and sent to contractor
Check?
Accounting Clerks enter payment into general ledger
End
GM coordinates with contractor to plan new construction
Contractor drafts designs for construction
Electricians work with contractor to complete construction
Receive contractor services invoice
Invoice
Review for QA purposes and approve
Invoice
Signoff form
Chief Operating Officer reviews for accounting purposes and approves
Invoice
Signoff form
Check?
Accounting processes payment for contractor
Check
Check signed by at least 2 approved signers and sent to contractor
Check?
Accounting Clerks enter payment into general ledger
End

THIS PAGE, INTENTIONALLY LEFT BLANK.